

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An electrochemical device component, comprising:
an active metal electrode having a first surface and a second surface;
a protective composite on the first surface of the electrode, the composite comprising,
a first material in contact with the electrode, the first material being ionically
conductive and chemically compatible with the active metal, wherein the first material
comprises a material selected from the group consisting of a composite reaction product
of the active metal with a metal nitride, a composite reaction product of the active metal
with silicon nitride, a composite reaction product of the active metal with a metal halide,
a composite reaction product of the active metal with a metal phosphide, a reaction
product of the active metal with red phosphorus, and a reaction product of the active
metal with LiPON coated with a wetting layer; and
a second material in contact with the first material, the second material being
substantially impervious, ionically conductive and chemically compatible with the first
material;
wherein the ionic conductivity of the composite is at least 10^{-7} S/cm.
2. (original) The component of claim 1, further comprising a current collector on the second
surface of the active metal electrode.
3. (currently amended) The component of claim 1, wherein the second material is
comprised in an ~~comprises the sole~~ electrolyte in a ~~subsequently formed~~ battery cell.
4. (currently amended) The component of claim 3, wherein the second material is the sole
electrolyte in the ~~subsequently formed battery cell further comprises an electrolyte.~~
5. (original) The component of claim 1, wherein the ionic conductivity of the second
material is between about 10^{-6} S/cm and 10^{-3} S/cm.
6. (original) The component of claim 1, wherein the ionic conductivity of the second
material is between about 10^{-5} S/cm and 10^{-4} S/cm.

7. (currently amended) The component of claim 1, wherein the ~~ratio of the first material to the thickness of the second material in the composite is about 10 to 1000 microns less than 1-1000.~~
8. (original) The component of claim 1, wherein the active metal of the electrode is lithium or a lithium alloy.
9. (currently amended) The component of claim 8 ~~claim 1~~, wherein the first material comprises a material selected from the group consisting of a composite reaction product of Li ~~active metal with a metal nitride Cu_3N , active metal nitrides, active metal phosphides, and active metal halides, and active metal phosphorus oxynitride glass.~~
10. (currently amended) The component of claim 9 ~~claim 1~~, wherein the metal nitride is selected from the group consisting of copper nitride, tin nitride, zinc nitride, iron nitride, cobalt nitride and aluminum nitride ~~first material comprises a material selected from the group consisting of a composite reaction product of Li with Cu_3N , Li_2N , Li_3P and LiI , LiBr , LiCl , LiF , and LiPON .~~
11. (original) The component of claim 1, wherein the second material comprises a material selected from the group consisting of glassy or amorphous metal ion conductors, ceramic active metal ion conductors, and glass-ceramic active metal ion conductors.
12. (original) The component of claim 1, wherein the second material comprises a material selected from the group consisting of LiPON , Li_3PO_4 , Li_2S , SiS_2 , Li_2S , GeS_2 , Ga_2S_3 , LISICON , NASICON , sodium beta-alumina and lithium beta-alumina.
13. (original) The component of claim 1, wherein the first material comprises a complex of an active metal halide and a polymer.
14. (original) The component of claim 1, wherein the second material is an ion conductive glass-ceramic having the following composition:

Composition	mol %
P_2O_5	26-55%
SiO_2	0-15%
$\text{GeO}_2 + \text{TiO}_2$	25-50%
in which GeO_2	0-50%

TiO ₂	0-50%
ZrO ₂	0-10%
M ₂ O ₃	0 < 10%
Al ₂ O ₃	0-15%
Ga ₂ O ₃	0-15%
Li ₂ O	3-25%

and containing a predominant crystalline phase composed of $\text{Li}_{1+x}(\text{M}, \text{Al}, \text{Ga})_x(\text{Ge}_{1-y}\text{Ti}_y)_{2-x}(\text{PO}_4)_3$ where $X \leq 0.8$ and $0 \leq Y \leq 1.0$, and where M is an element selected from the group consisting of Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm and Yb and/or and $\text{Li}_{1+x+y}\text{Q}_x\text{Ti}_{2-x}\text{Si}_y\text{P}_{3-y}\text{O}_{12}$ where $0 < X \leq 0.4$ and $0 < Y \leq 0.6$, and where Q is Al or Ga.

15. (original) The component of claim 1, wherein the second material is a flexible membrane comprising particles of an ion conductive glass-ceramic having the following composition:

Composition	mol %
P ₂ O ₅	26-55%
SiO ₂	0-15%
GeO ₂ + TiO ₂	25-50%
in which GeO ₂	0-50%
TiO ₂	0-50%
ZrO ₂	0-10%
M ₂ O ₃	0 < 10%
Al ₂ O ₃	0-15%
Ga ₂ O ₃	0-15%
Li ₂ O	3-25%

and containing a predominant crystalline phase composed of $\text{Li}_{1+x}(\text{M}, \text{Al}, \text{Ga})_x(\text{Ge}_{1-y}\text{Ti}_y)_{2-x}(\text{PO}_4)_3$ where $X \leq 0.8$ and $0 \leq Y \leq 1.0$, and where M is an element selected from the group consisting of

Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm and Yb and/or and $\text{Li}_{1+x+y}\text{Q}_x\text{Ti}_{2-x}\text{Si}_y\text{P}_{3-y}\text{O}_{12}$ where $0 < X \leq 0.4$ and $0 < Y \leq 0.6$, and where Q is Al or Ga in a solid polymer electrolyte.

16. (original) The component of claim 1, wherein the protective composite is a laminate of discrete layers of the first material and the second material.
17. (original) The component of claim 1, wherein the protective composite comprises a gradual transition between the first material and the second material.
- 18-20. (canceled)
21. (new) The component of claim 10, wherein the metal nitride is copper nitride (Cu_3N).
22. (new) The component of claim 8, wherein the first material comprises a material selected from the group consisting of a composite reaction product of Li with a metal halide.
23. (new) The component of claim 8, wherein the first material comprises a material selected from the group consisting of a composite reaction product of Li with a metal phosphide.
24. (new) The component of claim 8, wherein the first material comprises a material selected from the group consisting of a reaction product of Li with red phosphorus.
25. (new) The component of claim 8, wherein the first material comprises a material selected from the group consisting of a reaction product of Li with LiPON coated with a wetting layer.
26. (new) The component of claim 25, wherein the wetting layer coating is Ag.
27. (new) The component of claim 25, wherein the wetting layer coating is Sn.